REMARKS

This is in response to the Office Action dated June 17, 2004. Claims 1-2, 4-6, 8, and 10-22 have been canceled. New claims 23-29 have been added. Thus, claims 3, 7, 9 and 23-29 are now pending.

In response to the drawing objections, the specification has been amended to state that reference numeral 5 refers to an example base. Thus, it is respectfully submitted that the drawing objection has been addressed and overcome.

Claim 24

Claim 24 requires "cooling a base including protrusions and grooves, wherein said protrusions have dot protrusions and/or linear protrusions, and said grooves have V and/or U shaped sectional views; dipping surfaces of said protrusions of said cooled base into a melt material containing a semiconductor material, and forming crystals of said material on the surfaces of said protrusions in a manner so that a sheet formed on the protrusions has a shape including a plurality of adjacent curved portions, and wherein the shape of the sheet does not conform to the shape of at least some of the protrusions." For example support regarding a shape of a sheet that does not conform to the shape of at least some of the protrusions, see for example the instant specification at page 13, line 23 to pg. 14, line 15.

Yoshida (US 6,413,313) is commonly owned with the instant application, and was commonly owned at the time of the invention. Thus, Yoshida cannot be used in a rejection under Section 103. See 35 U.S.C. Section 103(c). Yoshida clearly fails to disclose or suggest

the aforesaid underlined aspects of claim 24. Thus, no rejection based on Yoshida can be made as to this claim.[1]

Wakefield also fails to disclose or suggest the invention of claim 24. In Wakefield, the crystals grow "*laterally*" from the tops of the ridges, thereby forming an "*essentially flat*" sheet/ribbon of silicon (col. 3, lines 50-51; col. 4, lines 48-54). In other words, the shape of the protrusions in Wakefield, and the temperature and speed of the roller, are such that the silicon crystals do not grow downwardly into the gaps between the protrusions to form a sheet with curved portions thereon. Thus, Wakefield fails to disclose or suggest a sheet that has a shape including a plurality of adjacent curved portions, and wherein the shape of the sheet does not conform to the shape of at least some of the protrusions. The flat top surfaces of the alleged protrusions in Wakefield, combined with the speed and temperature of the roller, are such that the silicon crystals do not grow downwardly into the gaps between the protrusions to form a sheet with curved portions thereon. Instead, the crystals in Wakefield grow "*laterally*" from the tops of the ridges, thereby forming an "*essentially flat*" sheet/ribbon of silicon (col. 3, lines 50-51; col. 4, lines 48-54) – the opposite of what claim 24 requires.

Claim 27

Claim 27 requires "dipping surfaces of said protrusions of said cooled base into a melt material containing semiconductor material, and forming crystals of said material on the surfaces of said protrusions coated with a coating material comprising boron nitride and/or pyrolitic carbon in a manner so that a sheet formed on the protrusions has a shape including a plurality of

[1] While not particularly important to this response, applicant does indeed believe that all pending claims are entitled to the claimed priority dates of the instant application. For example, applicant believes that "base" is supported, and so forth.

adjacent curved portions, and wherein the shape of the sheet does not conform to the shape of at least some of the protrusions."

Yoshida (US 6,413,313) is commonly owned with the instant application, and was commonly owned at the time of the invention. Thus, Yoshida cannot be used in a rejection under Section 103. See 35 U.S.C. Section 103(c). Yoshida clearly fails to disclose or suggest the aforesaid underlined latter aspect of claim 27. Thus, no rejection based on Yoshida can be made as to this claim.

Wakefield also fails to disclose or suggest the invention of claim 27. In Wakefield, the crystals grow "*laterally*" from the tops of the ridges, thereby forming an "*essentially flat*" sheet/ribbon of silicon (col. 3, lines 50-51; col. 4, lines 48-54). In other words, the shape of the protrusions in Wakefield, and the temperature and speed of the roller, are such that the silicon crystals do not grow downwardly into the gaps between the protrusions to form a sheet with curved portions thereon. Thus, Wakefield fails to disclose or suggest a sheet that has a shape including a plurality of adjacent curved portions, and wherein the shape of the sheet does not conform to the shape of at least some of the protrusions. The flat top surfaces of the alleged protrusions in Wakefield, combined with the speed and temperature of the roller, are such that the silicon crystals do not grow downwardly into the gaps between the protrusions to form a sheet with curved portions thereon. Instead, the crystals in Wakefield grow "*laterally*" from the tops of the ridges, thereby forming an "*essentially flat*" sheet/ribbon of silicon (col. 3, lines 50-51; col. 4, lines 48-54) – the opposite of what claim 27 requires.

Furthermore, Wakefield also fails to disclose or suggest the "boron nitride and/or pyrolitic carbon" aspect of claim 27.

Claims 28-29

Claims 28-29 require that "at least some of the protrusions comprise an apex that is sharp or rounded so as to help form the sheet with the curved portions." Again, Wakefield fails to disclose or suggest this aspect of claims 28-29.

Claim 3

Claim 3 requires "cooling a base including protrusions and grooves, wherein said protrusions have dot protrusions and/or linear protrusions, and said grooves have V and/or U shaped sectional views; and dipping surfaces of said protrusions of said cooled base into a melt material containing a semiconductor material, and forming crystals of said material on the surfaces of said protrusions." The cited art fails to disclose or suggest these aspects of claim 3.

Yoshida (US 6,413,313) is commonly owned with the instant application, and was commonly owned at the time of the invention. Thus, Yoshida cannot be used in a rejection under Section 103. See 35 U.S.C. Section 103(c). Yoshida clearly fails to disclose or suggest the aforesaid underlined aspects of claim 3. Thus, no rejection based on Yoshida can be made as to this claim. The cited art fails to disclose the protrusions in combination with the grooves having V and/or U shaped sectional views required by claim 3.

Double-Patenting Issue Raised in Office Action

It is respectfully submitted that the obviousness-type double patenting rejection has also been overcome in view of the amendment to claim 3 above. Thus, it is respectfully submitted that no terminal disclaimer is required, at least with respect to claim 3.

Conclusion

It is respectfully submitted that all claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

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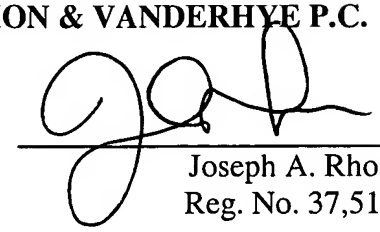
By: 

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